

DETAILED ACTION

Election/Restrictions

1. Claims 18-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/6/09.

Currently, claims 1-17 are under consideration in this application.

Response to Amendment

Applicant's amendment to claims 1 and 11 filed in the response on 7/14/09 is acknowledged. In light of applicant's amendment to claim 11, previous 112 rejection of record is hereby withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-13, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beyer et al. (US-590) in view of Hosoda et al. (US-600) for the reasons of record.

US 6,528,590 to Beyer et al. discloses a process for the preparation of aqueous dispersion comprising the polymerization of ethylenically unsaturated monomers to form a copolymer, in the presence of component B, emulsifier C and protective colloids D. Specifically, US-590 discloses a mixture of ethylenically unsaturated monomers comprising at least one ester of monoethylenically unsaturated carboxylic acid (a), at least one monoethylenically unsaturated mono or dibasic acid (b), at least one crosslinking monomer (c), and at least one other copolymerizable monoethylenically unsaturated monomer (d). Suitable monomer (b) and (d) include vinylcarboxamide, acrylamidoglycolic acid, (meth)acrylamides, N-vinylformamide and N-vinylpyrrolidone, within the scope of the instant monomer (a) (col. 3, lines 9-31; col. 4, lines 1-2). Suitable crosslinking monomers (c) are taught within the scope of the instant crosslinker (d) (col. 3, lines 32-58). Prior art teaches polymerization of the respective monomers in an aqueous medium in the presence of initiator, emulsifiers, regulators and protective colloids such as

carboxymethylcellulose, polyvinyl alcohol, and polypyrrolidone within the scope of the instant polymeric dispersant (b) (col. 5, lines 13-61). The instant polymeric precipitation agent (c) falls within the scope of prior art emulsifiers (c) and other dispersion auxiliaries such as plasticizers (col. 4, lines 58-65; col. 6, lines 43-53). A skilled artisan would recognize the conventional use of polyalkylene glycol such as PEG as emulsifiers and plasticizers. In any event, it would have been obvious to one having ordinary skill in the art to use a mixture of Polyethylene glycol, polyvinyl alcohol and polyvinylpyrrolidone as polymeric dispersant/protective colloids in the preparation of aqueous dispersion as taught in US 4,380,600 to Hosoda. Analogous US-600 specifically teaches the preparation of aqueous dispersion by polymerizing ethylenically unsaturated monomers in the presence of a water-soluble polymer, wherein polyethylene glycol, polyvinyl alcohol and polyvinylpyrrolidone are disclosed to be suitable polymer equivalents to be used alone or in mixture (see US-600, col. 5, lines 38-65). Accordingly, it would have been obvious to one having ordinary skill in the art to prepare an aqueous dispersion by polymerizing the mixture of ethylenically unsaturated

monomers in the presence of a mixture of polyethylene glycol, and polyvinyl alcohol or polyvinylpyrrolidone, motivated by the reasonable expectation of success in preparing an aqueous dispersion having good stability and fluidity/flowability as taught.

4. Claims 1-17 rejected under 35 U.S.C. 103(a) as being obvious over Angel et al. (US-293) in view of Beyer et al (US-590) for the reasons of record.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a

terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(1)(1) and § 706.02(1)(2).

US 6,770,293 to Angel et al. discloses the preparation of soft capsules comprising polymers derived from free radical polymerization of at least one vinyl ester and other ethylenically unsaturated comonomers in the presence of polyether (col. 13, lines 44-59). Specifically, suitable monomers include vinyl esters and comonomers such as vinylformamide, vinylmethylacetamide, vinylpyrrolidone, N-vinylimidazole, diallylamine, (meth)acrylamide and mixture thereof within the scope of the instant monomers (a) and (e) (col. 7, line 66 to col. 9, line 25). US-293 further discloses crosslinkers, regulators, neutralizing agents, emulsifier and protective colloids such as polyvinyl alcohol (col. 10, line 25 to col. 12, line 26, col. 13, lines 34-38). Suitable polymerization solvents include water, wherein the resultant product is an aqueous polymer dispersion (col. 13, line 24-38). Accordingly, it would have been obvious to one having ordinary skill in the art to prepare an aqueous dispersion via polymerization of ethylenically unsaturated

monomers in the presence of polyether, regulator, crosslinkers, and protective colloids as taught, motivated by the reasonable expectation of success. Furthermore, one skilled in the art would readily envisage selecting polyvinylpyrrolidone in place of or in admixture with polyvinyl alcohol as they are well known to be protective colloids equivalents, as taught in analogous US 6,528,590 to Beyer et al. Thus, rendering obvious the present claims.

Response to Arguments

Applicant's amendment and remarks filed on 7/14/09 have been fully considered. Firstly, applicants urge that the monoethylenically unsaturated crosslinking monomer (c) of Beyer et al. differs from applicant's disclosed crosslinkers having at least 2 ethylenically unsaturated, nonconjugated double bonds. This found to be unpersuasive as applicant's disclosure of crosslinkers is not only limited to those compounds having at least 2 ethylenically unsaturated, nonconjugated double bonds as asserted, but is also inclusive to others such as vinyl esters and vinyl compounds of urea derivatives which are taught in Beyers et al. to be suitable as crosslinking monomers. Secondly, applicants urge that the vinyl esters are polymerized by grafting onto the polyether containing compound (b) in Angel et al., hence, prior art polyether can not be considered to

correspond to the instant precipitation agent (c), but function as reactant. This is not compelling for at least the following reasons. Contrary to applicants' assertion, the polyether in Angel et al. does not solely function as a reactant as implied but would necessarily function as a precipitation agent as well. Prior art teaches polymerization of vinyl esters and comonomers in the presence of polyethers. The embodiment of grafting onto polyethers is taught to be a possibility of the resultant product (i.e. a bi-product), rather than the sole product species as inferred by applicants. Thus, once the polymerization is conducted in the presence of polyethers as taught by patentees, the function of polyether as a precipitation agent would be an inevitable consequence or an inherent characteristics that necessarily flows from practicing the teaching of prior art. Furthermore, the present claims merely requires a polymerized product derived from a mixture of (a) to (d) components, not a product free of grafting components as asserted. Finally, the polyether (b) of Angel et al. is necessarily differing from the resultant polymerized product. Accordingly, the examiner's position is maintained.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helen L. Pezzuto/
Primary Examiner
Art Unit 1796

hlp